## Session SBI45 (2016)

Session starts: 01-08-2016 00:00:00 [GMT+1] Session ends: 28-10-2016 23:59:59 [GMT+1]



Exported from Session final result section

Question by Japan at Wednesday, 31 August 2016

Category: Progress towards the achievement of its quantified economy-wide emission reduction target

Type: Before 31 August

Title: Frequency of evaluating the effectiveness of policies and measures

According to p.54 of the BR, the Act on the Reduction of CO2 Emissions obliges the Federal Council to periodically evaluate the effectiveness of the policies and measures and to consider the necessity of additional measures, but the periodicity of these evaluations is not specified. How often does Federal Council implement these activities?

Answer by Switzerland, Tuesday, 18 October 2016

Article 40 of Switzerland's  $\mathrm{CO}_2$  Act requests that the measures must be evaluated periodically. For the  $\mathrm{CO}_2$  emission regulations for new passenger cars and the national buildings refurbishment programme, these assessments have to be conducted at fixed dates or time intervals. For most measures, however, the  $\mathrm{CO}_2$  Act does not define when the assessments have to be performed.

Ex-post evaluations are completed or (repeatedly) performed for the following measures:

National buildings refurbishment programme, including subsidies for the restoration of buildings envelops (part A of the programme) as well as global federal subsidies to the cantons supporting the use of renewables, waste heat and modern building technology (part B of the programme): An ex-post evaluation is performed annually. Further, a report on the first five years of the programme, including the cumulative effects, was published in March 2016 (i.e. too late to be included for the submission of Switzerland's second biennial report).

 $CO_2$  levy: Extensive ex-post analyses (including two different approaches) were published in December 2015 and April 2016 (i.e. too late to be included for the submission of Switzerland's second biennial report).

CO<sub>2</sub> emission regulations for new passenger cars: Data of the specific emissions of newly released cars are published annually. An evaluation of the resulting mitigation effect is in preparation and should become available very soon.

Further, the Swiss Federal Audit Office evaluated the activities related to the *partial* compensation of CO<sub>2</sub> emissions from transport fuel use (report published in August 2016). A similar evaluation of the *emissions trading scheme* is currently ongoing.

## Relevant links:

http://www.bafu.admin.ch/klima/13877/14510/14754/index.html?lang=en

http://www.bafu.admin.ch/klima/13877/14510/14511/index.html?lang=en

http://www.news.admin.ch/NSBSubscriber/message/attachments/39826.pdf

http://www.efk.admin.ch/images/stories/efk\_dokumente/publikationen/andere\_berichte/Andere%20Berichte%20(136)/15374BE.pdf

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Question by Japan at Wednesday, 31 August 2016

Category: Progress towards the achievement of its quantified economy-wide emission reduction target

Type: Before 31 August

Title: Stakeholder coordination for projections

For preparation of projections, are the coordination with stakeholders (business communities, relevant ministries and NGO) carried out? If so, could you tell us the contents of the coordination?

Answer by Switzerland, Tuesday, 18 October 2016

The projections presented in Switzerland's second biennial report were developed along the same methodology as the greenhouse gas inventory (bottom-up estimates). Accordingly, the institutions and experts contributing to the annual greenhouse gas inventory were also involved for the preparation of projections. In particular, the relevant experts provided the expected evolution of key variables and further assumptions needed for the calculation of emission projections (where possible, official statistics/scenarios were considered, e.g. for population), and critically reviewed the draft of the projection chapter. While the collection of data for a particular sector is coordinated by the responsible administrative office, important input also comes from non-governmental agencies or private companies. Example: To gain data on past and future emissions of F-gases, the Federal Office for the Environment mandated a consultant from a private company, which itself collected data from experts and associations, as well as through questionnaires sent to companies active in importation, production and service of appliances.

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Question by Japan at Wednesday, 31 August 2016

Category: Progress towards the achievement of its quantified economy-wide emission reduction target

Type: Before 31 August

Title: Frequency of updating projections

How often are projection data updated or how often will they be updated in the future?

Answer by Switzerland, Tuesday, 18 October 2016

For each submission of a national communication or biennial report, projection data is carefully reviewed. If updates for key variables are available or if there occurred improvements in the methodology used for the bottom-up estimates (e.g. by switching to a higher Tier), they are considered for the new submission of projection data. However, a more in-depth update of projection data can only be performed if new scenarios for key parameters in a specific sector become available (irregular frequency). With regard to the development of the national legislation for the period after 2020 (revision of the CO<sub>2</sub> Act), a new methodology for projections in the energy sector was developed. As stated on page 70 of Switzerland's second biennial report, the new model could not yet be included for the last submission, but will be presented in the upcoming national communication and biennial report.

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Question by Brazil at Wednesday, 31 August 2016

Category: Assumptions, conditions and methodologies related to the attainment of its quantified economy-wide emission reduction target

Type: Before 31 August

Title: Emission projections

Regarding table 6(a) "Information on updated greenhouse gas projections under a 'with measures' scenario", could Switzerland please explain why GHG emission projected for 2020 with LULUCF is not being reported in BR2? It was reported in the previous BR.

Answer by Switzerland, Tuesday, 18 October 2016

According to footnote f in BR CTF table 6 'Parties may choose to report total emissions with or without LULUCF, as appropriate'. Under Article 3.3 of the Kyoto Protocol, Switzerland accounts for afforestation, reforestation as well as deforestation, and under Article 3.4 of the Kyoto Protocol for forest management. Switzerland thus provided the total without the (land-based) emissions from LULUCF, but the respective values are provided in CTF table 6 as

well.

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Question by Brazil at Wednesday, 31 August 2016

Category: Progress towards the achievement of its quantified economy-wide emission reduction target

Type: Before 31 August
Title: CTF Table 3 bis

Regarding mitigation actions referred to in "CTF Table 3 Progress in achievement of the quantified economy-wide emission reduction target: information on mitigation actions and their effects", are there any current estimates of mitigation impacts since the respective years of implementation?

Answer by Switzerland, Tuesday, 18 October 2016

Where available, Switzerland provided estimates of mitigation impacts in CTF table 3 of its second biennial report. While updates are not available at annual intervals, Switzerland will provide updated information on the mitigation impacts of policies and measures in its next submission, wherever feasible, or provide an explanation in case the mitigation impact cannot be estimated for a particular measure, as also requested by the ERT during the last review.

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Question by Brazil at Wednesday, 31 August 2016

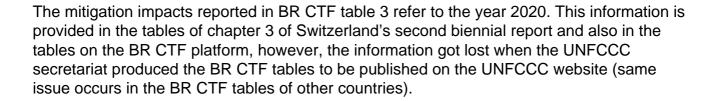
Category: Progress towards the achievement of its quantified economy-wide emission reduction target

Type: Before 31 August

Title: CTF Table 3

Regarding "CTF Table 3 Progress in achievement of the quantified economy-wide emission reduction target: information on mitigation actions and their effects", what is the year for estimate of mitigation impact?

Answer by Switzerland, Tuesday, 18 October 2016



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Question by Brazil at Wednesday, 31 August 2016

Category: All emissions and removals related to its quantified economy-wide emission reduction target

Type: Before 31 August

Title: BR1 and BR2 differences

In "CTF Table 3 Progress in achievement of the quantified economy-wide emission reduction target: information on mitigation actions and their effects", there are significant differences between some mitigation actions reported in BR1 and the same actions reported in BR2. For example:

- Emissions Trading Scheme (ETS): estimate of mitigation impact (not cumulative, in kt CO 2 eq) is 0.80 and 800 in BR 1 and BR 2, respectively.
- National buildings refurbishment programme (Part A): estimate of mitigation impact (not cumulative, in kt CO 2 eq) is 0.90 and 900 in BR 1 and BR 2, respectively.

Please, explain the reasons for those differences as well as what are the initiatives regarding quality control and assurance for those estimates.

Answer by Switzerland, Tuesday, 18 October 2016

For some policies and measures, the mitigation impacts were erroneously reported in Mt CO  $_2$  eq instead of kt CO $_2$  eq in BR CTF table 3 of the first biennial report. This has been corrected for the second biennial report.

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Category: All emissions and removals related to its quantified economy-wide emission reduction target

Type: Before 31 August

Title: Estimates of mitigation impacts

In "CTF Table 3 Progress in achievement of the quantified economy-wide emission reduction target: information on mitigation actions and their effects" a significant number of mitigation actions was listed. Congratulations for that. However, there are mitigation impacts not estimated. Please, inform the reasons for not reporting those mitigation impacts. What are the difficulties?

Answer by Switzerland, Tuesday, 18 October 2016

Estimating the mitigation impact of policies and measures is, in many cases, a challenging task. The difficulties are caused by the complexity, inter-linkages and also the type (e.g. informational) of individual mitigation actions, particularly in the agriculture sector and the LULUCF sector. An example to illustrate the difficulties to estimate the mitigation impact is the SwissEnergy programme. The programme consists of numerous actions in many different fields, serves as the central platform to inform, sensitize and network the relevant stakeholders, and coordinates and supports the exchange of know-how. While an evaluation of the mitigation effect regarding energy savings is already challenging, the translation to related CO<sub>2</sub> savings causes further difficulties. In addition, the inter-linkages to other policies and measures bears the risk of double counting of mitigation impacts. Nevertheless, Switzerland acknowledges that the estimation of mitigation impacts represents a fundamental step and will update the mitigation impacts of all policies and measures for the next submission. In case the mitigation impact cannot be estimated for a particular measure, Switzerland will provide more detailed explanations as also requested by the ERT during the last review.

Question by European Union at Monday, 29 August 2016

Category: Assumptions, conditions and methodologies related to the attainment of its quantified economy-wide emission reduction target

Type: Before 31 August

Title: Sensitivity of projections

Switzerland reported in chapter 4 of the BR2 (page 58) the projected GHG emissions and removals up to 2030 under three projection scenarios (with measures, with additional measures and without measures). Although Switzerland provides detailed description of its approach and methods for estimating projections, it does not provide information on the sensitivities of its projections to changes in key underlying datasets and the key variables.

Could Switzerland provide some insight into the sensitivity of its GHG projections to its underlying assumptions on economy and technology, particularly taking into account the considerable uncertainties relating to key variables used for the projections (as indicated in section 4.2 of the BR on page 60), the lack of historical emissions reductions between 1990 and 2013 and the gap between the projections of GHG emissions in the WEM and WAM scenarios and the emission reduction target in 2020?

Answer by Switzerland, Tuesday, 18 October 2016

Reporting of sensitivity analyses is not mandatory under the UNFCCC biennial reporting guidelines. However, Switzerland commissioned a study to update the emissions scenarios in the energy sector (see page 70 of Switzerland's second biennial report where it is also stated that this study could not yet be included for the last submission). This study includes sensitivity analyses, which will be presented in the upcoming national communication and biennial report. Based on this new study, Switzerland will thus be able to discuss the uncertainties related to the projections of greenhouse gas emissions. Further, the study provides a WOM scenario with the bifurcation point as early as 1990, i.e. historical emission reductions between 1990 and 2013 will also be presented in the next report.

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Question by European Union at Monday, 29 August 2016

Category: Progress towards the achievement of its quantified economy-wide emission reduction target

Type: Before 31 August

Title: Units from market based mechanisms

Switzerland's BR2 and CTF table 4(b) does not include information on quantity of units from market-based mechanisms under the Convention or other market-based mechanisms as required by the UNFCCC reporting guidelines on BR

Could Switzerland provide details of the current and expected use of market-based mechanisms in order to reach the target for 2020?

Answer by Switzerland, Tuesday, 18 October 2016

As stated in the footnote of BR CTF table 4(b), Switzerland will account for contributions from market-based mechanisms at the end of the commitment period and therefore no annual numbers can be provided (annual estimates are further made difficult by strong inter-annual variability of  ${\rm CO}_2$  emissions from the buildings sector which depend on meteorological conditions during winter time).

The different definitions of targets in the national (target for 2020 according to the revised CO <sub>2</sub> Act) and international (target for the year 2013–2020 under the Kyoto Protocol) context lead to an inconsistency. The inconsistency will require acquisition of 12 million units from market-based mechanisms, however, additional units may be needed depending on the evolution of emissions until 2020.

The ERT recommended that Switzerland report the amount of units from market-based mechanisms on the Swiss accounts in the national registry at the end of every year as a provisional estimate for the quantity of units used. The respective numbers for the second commitment period are available in the SEF tables (see SEF-CP2-2013, SEF-CP2-2014 and SEF-CP2-2015 on

http://unfccc.int/national\_reports/annex\_i\_ghg\_inventories/national\_inventories\_submissions/items/9492.php), however, the units hold by owners of an account in the national registry of Switzerland will not necessarily be used in order to reach the target (further, most accounts are currently still empty).

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Question by European Union at Monday, 29 August 2016

Category: Progress towards the achievement of its quantified economy-wide emission reduction target

Type: Before 31 August

Title: Policies and measures

In its second biennial report and the reporting tables (CTF table 3), Switzerland did not include estimations of the impacts for some of the mitigation actions in the energy, agriculture and LULUCF sectors. Also, when impacts are presented, it is not fully clear from the report for which years they are calculated.

Could Switzerland provide more explanation about the reasons why some impacts have not been estimated?

Could Switzerland explain which policies and measures are expected to provide the largest reductions in GHG emissions or highest removals?

Could Switzerland clarify the year for which the estimates of impacts are presented in BR2 CTF table 3?

Answer by Switzerland, Tuesday, 18 October 2016

Estimating the mitigation impact of policies and measures is, in many cases, a challenging task. The difficulties are caused by the complexity, inter-linkages and also the type (e.g. informational) of individual mitigation actions, particularly in the agriculture sector and the LULUCF sector. An example to illustrate the difficulties to estimate the mitigation impact is the SwissEnergy programme. The programme consists of numerous actions in many different fields, serves as the central platform to inform, sensitize and network the relevant stakeholders, and coordinates and supports the exchange of know-how. While an evaluation of the mitigation effect regarding energy savings is already challenging, the translation to related CO<sub>2</sub> savings causes further difficulties. In addition, the inter-linkages to other policies and measures bears the risk of double counting of mitigation impacts. Nevertheless, Switzerland acknowledges that the estimation of mitigation impacts represents a fundamental step and will update the mitigation impacts of all policies and measures for the next submission. In case the mitigation impact cannot be estimated for a particular measure, Switzerland will provide more detailed explanations as also requested by the ERT during the last review.

The estimated mitigation impacts of the policies and measures as presented in BR CTF table 3 depend on the level of aggregation/disaggregation of the policies and measures. For instance, various mitigation actions in the buildings sector are listed as single measures, but could also be combined to only one policy and measure. Accordingly, any ranking of policies and measures needs to be considered with caution. Nevertheless, according to BR CTF table 3, the policies and measures expected to provide each, by 2020, a reduction in greenhouse gas emissions of at least 1.5 Mt  $\rm CO_2$  eq are the following: (i) National buildings refurbishment programme (Part B); (ii)  $\rm CO_2$  levy on heating and process fuels; (iii) Building codes of the cantons; (iv)  $\rm CO_2$  emission regulations for new passenger cars; and (v) Partial compensation of  $\rm CO_2$  emissions from transport fuel use.

The mitigation impacts reported in BR CTF table 3 refer to the year 2020. This information is provided in the tables of chapter 3 of Switzerland's second biennial report and also in the tables on the BR CTF platform, however, the information got lost when the UNFCCC secretariat produced the BR CTF tables to be published on the UNFCCC website (same issue occurs in the BR CTF tables of other countries).

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Question by European Union at Monday, 29 August 2016

Category: Progress towards the achievement of its quantified economy-wide emission reduction target

Type: Before 31 August

Title: Achievement of targets

Switzerland has a target of 20% reduction on 1990 by 2020 (BR2 page 30 section 2.2).

According to the information reported in the second biennial report, projections with

Existing Measures (WEM) point towards achieving a reduction of only 15% on 1990 by 2020 (section 4.2 of BR2, page 60).

Could Switzerland provide information on mitigation actions it plans to implement in order to close the gap between the projected levels of emissions and the sector-specific and national targets for 2020?

Could Switzerland provide additional information on how believes its future implementation of actions will ensure it achieves its targets?

Answer by Switzerland, Tuesday, 18 October 2016

With the revised CO<sub>2</sub> Act and the CO<sub>2</sub> Ordinance, Switzerland is implementing the measures intended for achieving the set targets. Many measures will increase their mitigation effect with time. For instance, the CO<sub>2</sub> levy is automatically increased in case targets are not met (last increase: 1 January 2016). Further, the share of CO<sub>2</sub> emissions from transport fuel use that needs to be compensated domestically increases gradually and CO<sub>2</sub> emission regulations for new passenger cars are strengthened with time. Accordingly, the full effect of implemented mitigation measures will develop gradually, allowing the economy and other affected players to adapt. Admittedly, this development of mitigation actions is already reflected in the emission scenarios. However, according to Article 3 of the CO<sub>2</sub> Ordinance, additional measures may be proposed if sector-specific interim targets (for the year 2015) are not met. It is likely that this will rather effect the policies and measures post-2020, as the evaluation will only take place based on the inventory submitted in April 2017 (including the inventory covering the years 1990–2015).

The national target is generally formulated as a domestic target, however, as described in section 2.2.4 of Switzerland's second biennial report, carbon credits for emission reductions achieved abroad will play a role in the case of (i) the obligation to offset emissions from gas-fired combined-cycle power plants (section 3.3.6), (ii) the ETS (section 3.2.5), (iii) negotiated reduction commitments (for exemption from the  $\mathrm{CO}_2$  levy, section 3.2.6), (iv) the partial compensation of  $\mathrm{CO}_2$  emissions from transport fuel use (section 3.4.5). The achievement of the national and international targets will thus be the combined result of domestic mitigation action and market-based mechanisms, i.e. the legal provisions provide the possibility for interim adjustments to domestic measures (as described above) and the flexibility to ensure the overall achievement of the 2020 mitigation target using market-based mechanisms.

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Question by China at Monday, 29 August 2016

Category: Progress towards the achievement of its quantified economy-wide emission reduction target

Type: Before 31 August

## Title: Additional measures

Switzerland is not on track to achieve the target of 20% emission reduction compared to 1990 by 2020 according to its annual inventory report. What further domestic measures will Switzerland take to narrow down the gap in fulfilling its QEWERT? As Switzerland plans to use units from market-based mechanism for compliance, what restrictions will be applied in terms of total amount, type of units, etc.?

Answer by Switzerland, Tuesday, 18 October 2016

As stated in the footnote of BR CTF table 4(b), Switzerland will account for contributions from market-based mechanisms at the end of the commitment period and therefore no annual numbers can be provided (annual estimates are further made difficult by strong inter-annual variability of CO<sub>2</sub> emissions from the buildings sector which depend on meteorological conditions during winter time).

The different definitions of targets in the national (target for 2020 according to the revised CO <sub>2</sub> Act) and international (target for the year 2013–2020 under the Kyoto Protocol) context lead to an inconsistency. The inconsistency will require acquisition of 12 million units from market-based mechanisms, however, additional units may be needed depending on the evolution of emissions until 2020.

The ERT recommended that Switzerland report the amount of units from market-based mechanisms on the Swiss accounts in the national registry at the end of every year as a provisional estimate for the quantity of units used. The respective numbers for the second commitment period are available in the SEF tables (see SEF-CP2-2013, SEF-CP2-2014 and SEF-CP2-2015 on

http://unfccc.int/national\_reports/annex\_i\_ghg\_inventories/national\_inventories\_submissions/items/9492.php), however, the units hold by owners of an account in the national registry of Switzerland will not necessarily be used in order to reach the target (further, most accounts are currently still empty).

Switzerland applies various restrictions regarding the use of units from market-based mechanisms. Regarding the total amount, no estimate can currently be provided. However, only Certified Emission Reductions (CERs) from Clean Development Mechanism projects (CDM, Art. 12 Kyoto Protocol) and Emission Reduction Units (ERUs) resulting from Joint Implementation projects (JI, Art. 6 Kyoto Protocol) are considered. Moreover, these units need to meet the quality requirements of Annex 2 of the CO<sub>2</sub> Ordinance (Annex 2 provides a negative list): <a href="https://www.admin.ch/opc/en/classified-compilation/20120090/index.html#app2">https://www.admin.ch/opc/en/classified-compilation/20120090/index.html#app2</a>

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Question by China at Monday, 29 August 2016

Category: Progress towards the achievement of its quantified economy-wide emission reduction target

Type: Before 31 August

Title: projections

According to Switzerland's BR2, the WEM and WAM scenarios are driven by the same policies with strengthened measures under WAM. As the pre-2020 emission pattern presents larger reduction in transport sector in WAM compared to WEM, could Switzerland provide more information on its concrete reinforcement measures and estimated additional abatement costs for transport sector under WAM?

Answer by Switzerland, Tuesday, 18 October 2016

As stated on page 70 of Switzerland's second biennial report, the same scenarios as in Switzerland's sixth national communication and first biennial report were used for the energy sector (Prognos, 2012). The WAM scenario corresponds to the scenario named "new energy policy" in Prognos (2012). As this scenario represents a target scenario, it does not explain policies and measures in detail, but assumes that the political influence (trough promotion or regulation mechanisms) and the technical progress will result in the desired evolution of emissions. Regarding the emission scenarios for the transport sector, the main differences between the WEM and WAM scenarios are as follows: (i) by 2020 the modal split (road/rail) for passenger transport is assumed to be 80/20 under the WEM scenario and 77/23 under the WAM scenario, and similar changes are expected for the modal split for freight transport; (ii) by 2020 passenger kilometres will increase to 131 billion under the WEM scenario and to 127 billion under the WAM scenario; (iii) electrification is assumed to be the same under both scenarios, however, biofuels will become much more important under the WAM scenario.

As also mentioned on page 70 of Switzerland's second biennial report, an external study applying a computable general equilibrium model will provide updated scenarios for the energy sector which will be used for the next submission.

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## Session SBI45 (2016)

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